FUTURES

Index to Volume 13

No 1 February 1981
No 2 April 1981
No 3 June 1981
No 4 August 1981
No 5 October 1981
No 6 December 1981

Availability of nonfuel minerals (Futures Dossier), *Keith Thompson*, 13.6, 513–517
Balancing laws for R-space in cross-impact models (Methodology), *Robert E. Jensen*, 13.3, 217–220
Center for Futures Research (Research Centre Profile), *Burt Nanus*, 13.5, 423–424
Changing capital values and the propensity to innovate, *Gerhard Mensch, Charles Coutinho, and Klaus Kaasch*, 13.4, 276–292
Dear model builder (editorial), 13.3, 158
Despair and the UN Development Decade, *Walter Goldstein*, 13.3, 206–216
Developing country finances, present and future, *Graham Bird*, 13.3, 191–206
Distributive industries in the UK to the year 1995, *A. M. Parkinson, S. R. Hill, and A. J. G. Shaw*, 13.3, 184–190
Editorial balance between credos (Letter), *Sir Geoffrey Vickers*, 13.1, 67–69
Employment and new technology in Tameside, *Kenneth Green and Rod Coombs*, 13.1, 43–50
Employment forecasts neglected by local authorities, *Graham H. May and D. Howard Green*, 13.2, 93–106
Erich Jantsch, 1929–1980, *Fritjof Capra*, 13.2, 150–151
Evolution of controversial fields: lessons from the past for futures (Insights from History), *Richard L. Henschel*, 13.5, 401–412
Explaining long waves of capitalist development, *Ernest Mandel*, 13.4, 332–338
Exploring long-term business climates and strategies with INTERAX, *Selwyn Enzer*, 13.6, 468–482
Extraterrestrial Imperative, The, *Krafft A. Ehricke*, 13.2, 107–114
Fluctuations in innovations over time, *Jacob J. van Duijn*, 13.4, 264–275
Foreign aid and developing countries' debt, *John Thoburn*, 13.3, 153–155
Frankenstein unbound: towards a legal definition of artificial intelligence, *S. N. Lehman-Wilzig*, 13.6, 442–457
Gerald Barney, Director of the Global 2000 study (John Kettle Interview), 13.6, 508–512
Group working at Volvo (Report), *H. G. Jones*, 13.1, 63–66
Gylany: the balanced future (Futures essay), *Riane T. Eisler*, 13.6, 499–507
"The Heart of Enterprise" (Letter), *Raul Espejo*, 13.1, 70–71
Historians and long-waves, *Gerrit van Roon*, 13.5, 383–388
Impulse and diffusion in the study of technical change, *J. S. Metcalfe*, 8.5, 347–359
Incentives for inventors: theory of market and planned economies, *Andrew Stern*, 13.2, 81–92
Innovation and economic change, *Jay W. Forrester*, 13.4, 323–338
Innovation, automation, and the long-wave theory, *R. W. Coombs*, 13.5, 360–370
Innovation, information, and long-term growth, *André Piatier*, 13.5, 371–382
Kondratiev cycles and so-called long waves: the early research, *J. Tinbergen*, 13.4, 258–263
List of global models, 13.6, 524–525
Long waves, inventions, and innovations, *John Clark, Christopher Freeman, and Luc Soete*, 13.4, 308–323
A model of new technology and jobs, *Michael Hopkins and Rolph Van Der Hoeven*, 13.6, 483–488
Modelling bicommunal conflict: 2. Structuring the model, *D. A. Bowers, C. R. Mitchell, and K. Webb*, 13.1, 31–42, part 3, Simulation and validation, 13.2, 115–127
Money transfer, present and future, *Peter Hirsch*, 13.1, 23–30
News from the Shanghai branch (Report), *Gu Jingquing*, 13.1, 66–67
1969 Delphi study of medicine (Retrospective), *Paul Turner*, 13.3, 221–223
Observations on the Schumpeterian swarming of innovations, *Alfred Kleinknecht*, 13.4, 293–307
Pointers to government policies for technical innovation, *Roy Rothwell*, 13.3, 171–183
Projecting economic structure with a large-scale econometric model, *Terry Barker*, 13.6, 458–467
Reassessment of cross-impact analysis (Methodology), *Olaf Helmer*, 13.5, 389–400
Recent long-wave theories: a critical survey, *Jos Delbeke*, 13.4, 246–257
Recombinant DNA breakthroughs in agriculture, industry, and medicine, *Shelby Stewman, David Lincoln, et al*, 13.2, 128–140
Scenario probability scaling: an eigenvector analysis of elicited scenario odds ratios (Methodology), *Robert E. Jensen*, 13.6, 489–498
Simulation of strategies for long-term international development, *A. H. Burgess, G. M. Burgess, and F. Merrem*, 13.1, 13–22
Small is powerful; technology is art (Futures Essay), *J. Christopher Jones*, 13.1, 51–62
Study by the Institute of Production Engineers UK (How we forecast), *Ronald M. Webb*, 13.5, 420–423
Sweden in the world, *Sven Tägil*, 13.1, 2–12
Technical change, employment, and international competition, *Peter Senker*, 13.3, 159–170
Technological innovation and long waves in world economic development: Introduction, *Christopher Freeman*, 13.4, 239–245
Teilhard in retrospect (Report), *M. R. Brett-Crowther*, 13.6, 517–520
Trends in the chemical industry (Retrospective), *P. G. Caudle*, 13.5, 413–416
World energy prices (Futures dossier), *Mike Robson*, 13.5, 416–420

Authors

Barker, Terry, Projecting economic structure with a large-scale econometric model, 13.6, 458–467

Bird, Graham, Developing country finances, present and future, 13.3, 191–206

Bowers, D. A., C. R. Mitchell, and K. Webb, Modelling bicommunal conflict: 2. Structuring the model, 13.1, 31–42; part 3, Simulation and validation, 13.2, 115–127

Brett-Crowther, M. R., Teilhard in retrospect (Report), 13.6, 517–520

Burgess, A. H., G. M. Burgess and F. Merrem, Simulation of strategies for long-term international development, 13.1, 13–22

Burgess, G. M., see Burgess, A. H.

Capra, Fritjof, Erich Jantsch, 1929–1980, 13.2, 150–151

Caudle, P. G., Trends in the chemical industry (Retrospective), 13.5, 413–416

Clark, John, Christopher Freeman and Luc Soete, Long waves, inventions, and innovations, 13.4, 308–323

Coombs, R. W., Innovation, automation, and the long-wave theory, 13.5, 360–370; see also Green, Kenneth

Coutinho, Charles, see Mensch, Gerhard

Delbeke, Jos, Recent long-wave theories: a critical survey, 13.4, 246–257

Ehricke, Krafft A., Extraterrestrial Imperative, The, 13.2, 107–114

Eisler, Riane T., Gylany: the balanced future (Futures Essay), 13.6, 499–507

Enzer, Selwyn, Exploring long-term business climates and strategies with INTERAX, 13.6, 468–482.

Espejo, Raul, "The Heart of Enterprise" (Letter), 13.1, 70–71

Forrester, Jay W., Innovation and economic change, 13.4, 323–338

Freeman, Christopher, Technological innovation and long waves in world economic development: Introduction, 13.4, 239–245

Freeman, Christopher, see Clark, John

Goldstein, Walter, Despair and the UN Development Decade, 13.3, 206–216

Green, Kenneth, and Rod Coombs, Employment and new technology in Tameside, 13.1, 43–50

Helmer, Olaf, Reassessment of cross-impact analysis (Methodology), 13.5, 389–400

Henshel, Richard L., Evolution of controversial fields: lessons from the past for futures (Insights from History), 13.5, 401–412

Hill, S. R., see Parkinson, A. M.

Hirsch, Peter, Money transfer, present and future, 13.1, 23–20

Hopkins, Michael and Rolph Van Der Hoeven, A model of new technology and jobs, 13.6, 483–488

Howard Green, D., see May, Graham H.

Jensen, Robert E., Balancing laws for R-space in cross-impact models (Methodology), 13.3, 217–220

Jensen, Robert E., Scenario probability scaling: an eigenvector analysis of elicited scenario odds ratios (Methodology), 13.6, 489–498

Jingquing, Gu, News from the Shanghai branch (Report), 13.1, 66–67

Jones, H. G., Group working at Volvo (Report), 13.1, 63–66

Jones, J. Christopher, Small is powerful; technology is art (Futures Essay), 13.1, 51–62

Kaasch, Klaus, see Mensch, Gerhard

Kleinknecht, Alfred, Observations on the Schumpeterian swarming of innovations, 13.4, 293–307

Lehman-Wilzig, S. N., Frankenstein unbound: towards a legal definition of artificial intelligence, 13.6, 442–457

Lincoln, David, see Stewman, Shelby

Mandel, Ernest, Explaining long waves of capitalist development, 13.4, 332–338

May, Graham H. and D. Howard Green, Employment forecasts neglected by local authorities, 13.2, 93–106

Mensch, Gerhard, Charles Coutinho and Klaus Kaasch, Changing capital values and the propensity to innovate, 13.4, 276–292

Merrem, F., see Burgess, A. H.

Metcalfe, J. S., Impulse and diffusion in the study of technical change, 8.5, 347–359

Mitchell, C. R., see Bowers, D. A.

Nanus, Burt, Center for Futures Research (Research Centre Profile), 13.5, 423–424

Parkinson, A. M., S. R. Hill and A. J. G. Shaw, Distributive industries in the UK to the year 1995, 13.3, 184–190

Piatier, André, Innovation, information, and long-term growth, 13.5, 371–382

Robson, Mike, World energy prices (Futures Dossier), 13.5, 416–420

Rothwell, Roy, Pointers to government policies for technical innovation, 13.3, 171–183

Senker, Peter, Technical change, employment and international competition, 13.3, 159–170

Shaw J. G., see Parkinson, A. M.

Soete, Luc, see Clark, John

Stern, Andrew, Incentives for inventors: theory of market and planned economies, 13.2, 81–92

Stewman, Shelby, David Lincoln, et al, Recombinant DNA breakthroughs in agriculture, industry and medicine, 13.2, 128–140

Tägil, Sven, Sweden in the world, 13.1, 2–12

Thoburn, John, Foreign aid and developing countries' debt, 13.3, 153–155

Thompson, Keith, Availability of nonfuel minerals (Futures Dossier), 13.6, 513–517

Tinbergen, J., Kondratiev cycles and so-called long waves: the early research, 13.4, 258–263

Turner, Paul, 1969 Delphi study of medicine (Retrospective), 13.3, 221–223

Van Der Hoeven, Rolph, see Hopkins, Michael

van Duijn, Jacob J., Fluctuations in innovations over time, 13.4, 264–275

van Roon, Gerrit, Historians and long-waves, 13.5, 383–388

Vickers, Sir Geoffrey, Editorial balance between credos (Letter), 13.1, 67–69

Webb, K., see Bowers D. A.
Webb, Ronald M., Study by the Institute of Production Engineers, UK (How we forecast), 13.5, 420–423

Books reviewed (author, title reviewer)

Baker, W. O., (ed), Modern Technology: Problem or Opportunity?, *John Langrish*, 13.1, 78–79
Barnet, Richard J., The Lean Years: Politics in the Age of Scarcity, *David Humphreys*, 13.5, 432–434
Benford, Gregory, Timescape, *Dennis Livingston*, 13.6, 536–537
Bruckmann, Gerhart, ed, Input-Output Approaches in Global Modeling: Proceedings of the Fifth IIASA Symposium, *John A. Clark*, 13.3, 227–229
Campos-Lopez, Enrique, Renewable Resources: A Systematic Approach (Booknote), 13.3, 235
Castles, Stephen, The Education of the Future, *Vincent Houghton*, 13.1, 76–78
Cheston, T. Stephen and David L. Winter, eds, Human Factors of Outer Space Production, *Michiel Schwarz*, 13.2, 143–144
Comfort, Alex, Tetrarch, *Dennis Livingston*, 13.3, 232–233
Cutliffe, Stephen H., et al, Technology and Values in American Civilization: A Guide to Information Sources, (Booknote), 13.3, 235
Deighton, Len, SS–GB, *Dennis Livingston*, 13.1, 72–73
Feldman, Stephen L., and Robert M. Wirtschafter, On the Economics of Solar Energy, *Richard Westoby*, 13.3, 230–231
Gershuny, J. I., and G. S. Thomas. Changing Patterns of Time Use, *K. Roberts*, 13.5, 435–436
Giarini, Orio, Dialogue on Wealth and Welfare: An Alternative view of World Capital Formation, *Yu Hui*, 13.5, 434–435
Glickman, Norman, The Growth and Management of the Japanese Urban System, *Peter Hall*, 13.5, 425–426
Hansard Society, Politics and Industry – The Great Mismatch, *Michael Z. Brooke*, 13.1, 75
Hawrylyshyn, Bodhan, Road Maps to the Future: Towards More Effective Societies, *Ian Miles*, 528–533
Ince, Martin, Space (Booknote), 13.3, 235
Institute of Strategic Studies, 6 titles on strategic issues, *Paul Rogers*, 13.5, 428–432
James, Simon, Dictionary of Economic Quotations, *Patrick McGoldstein*, 13.6, 533–535
Kahn, Herman, World Economic Development, 1979 Out Beyond, *Asa Briggs*, 13.6, 526–528
Kahn, Herman, and Thomas Pepper, Will She Be Right? The Future of Australia, *Fred Emery*, 13.2, 146–155
Kasper, Wolfgang, et al, Australia at the Crossroads: Our Choice to the Year 2000, *Fred Emery* 13.2, 146–155
Kirk, Gwyneth, Urban Planning in a Capitalist Society, *Andrew Kirby*, 13.3, 229–230
Kurian, George, The Book of International Lists, *Patrick McGoldstein*, 13.6, 533–535
Majone, Giandomenico, and Edward S. Quade, eds, Pitfalls of Analysis, 13.3, 233–234
Marsh, Peter, The Silicon Chip Book (Booknote), 13.3, 235
Niven, Larry, The Ringworld Engineers, *Dennis Livingston*, 13.2, 151–153
Odell, Peter R., and K. E. Rosing, The Future of Oil: A Simulation Study, *Edward F. Renshaw*, 13.1, 73–75
OECD, Policy Implications of Data Network Developments in the OECD Area, *Hanko van Beinum*, 13.2, 141–142
Ramberg, Bennett, Destruction of Nuclear Energy Facilities in War: The Problems and the Implications, *J. P. Perry Robinson*, 13.4, 340–342
Rothman, Harry, et al, Biotechnology: A Review and Annotated Bibliography (Booknote), 13.3, 235
Rothman, Jack, Using Research in Organisations: A Guide to Successful Application, *Patricia Thomas*, 13.4, 339–340
Rutter, Lawrence, The Essential Community: Local Government in the Year 2000, *D. Howard Green*, 13.5, 426–428
Smith, L. Neil, The Probability Broach, *Dennis Livingston*, 13.1, 72–73
Spinrad, Norman, Songs from the Stars, *Dennis Livingston*, 13.3, 232–233
Tevis, Walter, Mockingbird, *Dennis Livingston*, 13.2, 151–153
Vedin, Bengt-Arne, Current Innovation: Policy Management and Research Options, *Roy Rothwell*, 13.3, 226–227
Wallechinsky, David, et al, The Book of Predictions, *Patrick McGoldstein*, 13.6, 533–535
Wolfe, Gene, The Shadow of the Torturer, and The Claw of the Conciliator, *Dennis Livingston*, 13.5, 437–438
Zeman, Z. R. and D. Hoffman, eds, The Dynamics of the Technological Leadership of the World, *Michael Gibbons*, 13.2, 144–146

Conference reports (sponsor, title, reporter)

Chinese System Engineering and Futures Studies Societies, "Decision Making with Scientific Methodologies" (Peking, 24–28 April 1981), *Feng Qiuming*, 13.5, 438–440
International Institute for Applied Systems Analysis, "Global modeling at the service of the decision maker" (Laxenburg, 14–18 September 1981), *Willliam Page*, 13.6, 522–524
Royal Institute of Public Administration, "Facing the energy future" (London, 23 January 1981), *David Lowry and Mark Barrett*, 13.3, 224–226
Sperry-Univac seminar on computing "The next ten years: the unprecedented opportunity" (St. Paul de Vence, July 1981), *Penny Flood*, 13.6, 520–522